

**Notice of Allowability**

Application No.

10/056,653

Applicant(s)

FRANZ ET AL.

Examiner

Jacob F. Betit

Art Unit

2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the after final amendment dated 05-July-2005.
2. ☒ The allowed claim(s) is/are 2-11 and 13-20.
3. ☒ The drawings filed on 25 January 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 20050720.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**CHARLES RONES**  
**PRIMARY EXAMINER**

## **DETAILED ACTION**

### ***Remarks***

1. In response to communications filed on 05-July-2005, claims 2-4, and 14-16 are amended and claims 1, 13, and 23-33 are canceled per applicant's request. Claims 2-11 and 13-20 are presently pending in the application.

2. In view of the examiner's amendment, authorized by Attorney of Record, claims 4 and 16 are amended by the examiner (details provided below).

### ***Examiners Amendment***

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Frank DaRosa on 20-July-2005 (see attached interview summary).

The application has been amended as follows:

Replace claim 4 with the following:

4. (Currently Amended) A computer implemented method for compressing an index file in an information retrieval system that retrieves information from a plurality of

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documents, each of the plurality of documents having features occurring therein, the method comprising the step of:

representing occurrence frequencies of the features in the plurality of documents in a compressed format in the index file, wherein the compressed format comprises a plurality of bin identifiers for a plurality of bins over which the occurrence frequencies are categorized, wherein said representing step comprises the steps of:

mapping the occurrence frequencies into a plurality of bins; and

storing the bin identifiers in the index file, each of the bin identifiers identifying at least one of the bins to which at least one individual occurrence frequency is mapped.

Replace claim 16 with the following:

16. (Currently Amended) An apparatus for compressing an index file in an information retrieval system that retrieves information from a plurality of documents, each of the plurality of documents having features occurring therein, the apparatus comprising:

a compression device ~~for representing that represents~~ occurrence frequencies of the features in the plurality of documents in a compressed format in the index file, wherein the compressed format comprises a plurality of bin identifiers for a plurality of bins over which the occurrence frequencies are categorized, wherein said compression device comprises:

a bin generator ~~for generating that generates~~ the plurality of bins and the corresponding plurality of bin identifiers, each of the plurality of bin identifiers

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respectively identifying one of the plurality of bins to which at least one individual occurrence frequency is mapped;

a mapping device ~~for mapping that maps~~ the occurrence frequencies into the plurality of bins; and

a storage device ~~for storing that stores~~ the bin identifiers in the index file.

*Allowable Subject Matter*

4. Claims 2-11 and 13-20 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art of record does not disclose, teach or suggest (in combination with all other features of the claim):

mapping the occurrence frequencies into the plurality of bins; and

storing the bin identifiers in the index file, each of the bin identifiers identifying at least one of the bins to which at least one individual occurrence frequency is mapped, as claimed in independent claim 4.

Claims 2-3 and 5-12 are allowed for being dependent on allowed independent claim 4.

The prior art of record does not disclose, teach, or suggest (in combination with all other features of the claim):

a bin generator that generates the plurality of bins and the corresponding plurality of bin identifiers, each of the plurality of bin identifiers respectively identifying one of the plurality of bins to which at least one individual occurrence frequency is mapped;

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a mapping device that maps the occurrence frequencies into the plurality of bins;  
and

a storage device that stores the bin identifiers in the index file as claimed in  
independent claim 16.

Claims 14-15 and 17-22 are allowed for being dependent on allowed independent  
claim 16.


Any comments considered necessary by applicant must be submitted no later than  
the payment of the issue fee and, to avoid processing delays, should preferably  
accompany the issue fee. Such submissions should be clearly labeled "Comments on  
Statement of Reasons for Allowance."

*Conclusion*

5. Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to Jacob F. Betit whose telephone number is (571) 272-  
4075. The examiner can normally be reached on Monday through Friday 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for  
the organization where this application or proceeding is assigned is 703-872-9306.

jfb  
15 Jul 2005

  
**CHARLES RONES**  
**PRIMARY EXAMINER**